

A New Species of *Mitra* (Gastropoda) from Hawaii

BY

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(Plates 10, 11)

In January 1962 I published in this journal (The Veliger, Vol. 4, No. 3, pp. 140-149) a paper concerning 13 species of *Mitra* from Hawaii that had been described by Pilsbry in 1920. At that time *Mitra langfordi* Pilsbry was placed in the synonymy of *M. peasei* Dohrn, 1860, that species having proved to be identical with Pilsbry's holotype. During the ensuing months I have received inquiries from several collectors in Hawaii, saying in effect "What has become of the species we used to call *Mitra langfordi*?" It developed that they had erroneously applied the name *M. langfordi* to a species actually quite different from *M. peasei*, though with certain superficial morphological similarities. Pilsbry's inadequate illustration was an unreliable guide, and his description could have applied almost equally to either form. As *M. peasei* was widely recognized under its correct name in Island collections, the collectors quite understandably assumed that the remaining similar species must, therefore, be *M. langfordi*.

A long and careful search through all pertinent literature and many large collections shed no light on the identity of the unknown species. Only one figure seemed to offer a remote possibility in any of the classic works on Mitridae — Sowerby's (1874) figure of *Mitra sanguinolenta* Lamarck, 1811, somewhat resembled the Hawaiian shell. *Mitra sanguinolenta* is an almost forgotten species described from a single specimen of unknown locality, discounted by most subsequent authors as probably nonexistent or a synonym of some other species. Notwithstanding the discouraging remarks of Tryon (1882), Reeve (1845), Sowerby (1874), and a few others, on the very slight hope that this might be the same species Lamarck had described, I made inquiries in Paris; these were soon answered with an excellent photo-

graph of the holotype of *M. sanguinolenta* (see Plate 11, Fig. 2). I should like to express my gratitude to M. Paul-Henri Fischer of the Journal de Conchyliologie for directing my letter of inquiry into the right hands, and to M. J. Gailard of the Muséum National d'Histoire Naturelle (Paris) for providing the photograph, which establishes without doubt that *M. sanguinolenta* Lamarck is not the same species that had been mistakenly identified by Hawaiian collectors as *M. langfordi*.

In April 1962 I had occasion to visit three of the large museum collections on our Atlantic Coast and noted each lot seen that resembled the unknown species; in all the collections of the three museums I was able to find only four lots which I believe to be this species: one lot in the Pease Collection at the Museum of Comparative Zoology (Harvard) labeled "*Mitra carnicolor* Reeve: Honolulu", and three lots in the United States National Museum (Washington, D. C.) labeled "*Mitra clathrus emersoni* Pilsbry". The four lots were all collected in Hawaii. As far as I could ascertain, the American Museum of Natural History (New York) has no specimens resembling this form. A personal letter from Miss Virginia Orr (May 1962) establishes that there are likewise no specimens in the collection of the Academy of Natural Sciences of Philadelphia similar to the sample I sent for comparison. I have not seen it in the West Coast collections of the California Academy of Sciences, Stanford University, nor the Los Angeles County Museum. The infrequent occurrence in these large collections not only confirms its rarity but also suggests the possibility of its being an undescribed species and one that may be endemic to Hawaii. Further data for the above and other specimens are included in Table 1.



Kodachromes by TAKEO SUSUKI

Mitra langfordiana J. CATE, spec. nov.

Figure 1: Dorsal Aspect of Paratype 1

Figure 2: Ventral Aspect of Holotype

Table 1

Mitra langfordiana J. CATE, spec. nov.

Data on specimens used in this study. (Measurements in millimeters; depths in feet)

Specimen	In the collection of:	Length	Diam.	Location	Collector & Date	Depth	
Holotype	B. P. Bishop Museum 215317	25.7	10.1	Pokai Bay, Waianae, Oahu	21 May, 1961	45 to 50	
Paratype 1	Calif. Acad. Sci. Paleo. Type Coll. 12407	25.5	10.4		24 June, 1961		
Paratype 2	Mr. and Mrs. A. M. Harrison	25.6	10.1		E. Harrison 21 May, 1961		
Paratype 3		¹	16.3				6.9
Paratype 4		¹	14.4				6.5
Paratype 5		¹	6.8				5.5
Paratype 6		¹	21.9				10.0
Paratype 7		¹	14.9				6.6
Paratype 8		¹	25.8				10.4
Paratype 9		¹	21.2				8.8
Paratype 10		¹	13.2				7.4
Paratype 11		¹	15.6				8.7
Paratype 12	¹	15.6	7.3		Betsy Harrison May, 1961 ³		
Paratype 13	¹	21.0	8.4				
Paratype 14	¹	21.7	8.6				
Paratype 15	¹	17.3	7.4				
Paratype 16	J. M. Cate	23.5	9.8		Pele I Expedition 17 April, 1959		100
Paratype 17		¹	30.4	10.7			

¹ juvenile ² fanned in sand ³ fanned out of sand 2 to 3 feet in depth

All of the foregoing left the collectors' questions still unanswered, but after carefully going over all the available information, I have concluded that the shell is a new species, probably endemic to Hawaii. Through the generosity of Elizabeth Harrison, Clifton Weaver, E. R. Cross, Ditlev Thaanum, and John Duarte, I have had the opportunity of studying several specimens of this rare species, and I wish to thank these enthusiastic collectors for their help. Together with the museum specimens mentioned above, I have now seen approximately 37 specimens, a large number indeed for so uncommon a species.

Because I deeply regret that the earlier name honoring D. B. Langford had to be placed in synonymy, and further because collectors in Hawaii have so long associated his name with this particular species (even though incorrectly), it seems fitting to re-establish Langford's name among the Hawaiian Mitridae by using it for this species in a form differing from Pilsbry's original orthography only enough to make the name taxonomically available. It is understood that the name *Mitra langfordi* now has no standing in molluscan nomenclature. I take pleasure, therefore, in describing this newly recognized Hawaiian mitrid as:

Mitra langfordiana J. CATE, spec. nov.

Shell spindle-shaped, spire longer than aperture; sutures impressed. Protoconch mammillated, homeostrophic, consisting of one or two smooth dark-red whorls (see Plate 11, Fig. 4). Teleoconch of about seven convex whorls, spirally ornamented with regularly spaced pustulose cords, about four or five rows on each upper whorl, 10 or 12 on the last whorl. Space between spiral cords finely grooved with about three parallel ridges and interspaces, of which the central ridge is sometimes slightly more prominent. Shell longitudinally very finely striate, the single striae intersecting all spiral sculpture, creating a beaded effect on the larger spiral cords and forming cancellate sculpture in the interspaces (see Plate 11, Figs. 1, 3, 4).

Aperture straight; labrum in adult specimens fairly thick, smooth within, ridged without by termination of the spiral cords. Columella straight, with two strong oblique adapical folds and from two to three weaker anterior folds. Peristome entire; siphonal fasciole weakly produced, shell very slightly umbilicate.

Basic color of shell beige (Maerz & Paul Dictionary of Color, 2nd Edition, 1950; Pl. 10,